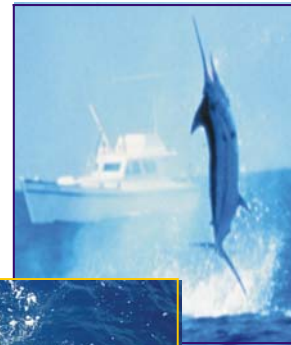


Final Consolidated Atlantic Highly Migratory Species Fishery Management Plan



Including:
A Final Environmental Impact Statement,
A Final Regulatory Impact Review,
A Final Regulatory Flexibility Analysis,
A Final Social Impact Assessment,
Framework Actions, and
the 2006 Stock Assessment and Fishery Evaluation Report



DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Office of Sustainable Fisheries
Highly Migratory Species Management Division

July 2006

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CONSOLIDATED

ATLANTIC HIGHLY MIGRATORY SPECIES

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Highly Migratory Species Management Division
Office of Sustainable Fisheries
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1315 East-West Highway
Silver Spring, Maryland 20910



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The Final Consolidated Atlantic Highly Migratory Species Fishery Management Plan

Actions: Consolidate the Fishery Management Plan for Atlantic Tunas, Swordfish, and Shark and the Atlantic Billfish Fishery Management Plan; establish workshops for fishermen and dealers; consider changes to time/area closures; address rebuilding and/or overfishing of northern albacore tuna, finetooth sharks, and Atlantic billfish; modify the management process of bluefin tuna; change the fishing year; modify the authorized gears; implement minor changes and clarifications to the regulations; and begin the process to update essential fish habitat

Type of Statement: Final Environmental Impact Statement; Final Regulatory Impact Review; Final Regulatory Flexibility Analysis; Final Social Impact Statement; and Final Framework Actions

Lead Agency: National Marine Fisheries Service

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Abstract: In 2003, the National Marine Fisheries Service (NMFS) began the process to amend the Fishery Management Plan for Atlantic Tunas, Swordfish, and Sharks and the Atlantic Billfish Fishery Management Plan. After considering comments on a scoping paper and on a predraft document, NMFS decided to consolidate these fishery management plans, modify the fishery management plan management measures as necessary, implement framework actions, and begin the process for updating essential fish habitat. The draft of this document was released on August 19, 2005. The comment period was open until March 1, 2006. During this time, 24 public hearings were held throughout the coastal states from Maine through Texas and the Caribbean. The final document describes a range of alternatives that could impact fishermen and dealers for all highly migratory species fisheries. The preferred alternatives include those to: establish mandatory workshops for fishermen and dealers; implement two small closures, consistent with regulations implemented by the Gulf of Mexico Fishery Management Council; establish criteria for modifying and/or establishing time/area closures; address rebuilding and/or overfishing of northern albacore tuna, finetooth sharks, and Atlantic billfish; modify the management process of bluefin tuna; change the fishing year for tunas, swordfish, and billfish back to a calendar year; authorize additional fishing gears; and clarify the regulations.

EXECUTIVE SUMMARY

Atlantic Highly Migratory Species (HMS) are managed under the dual authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) and the Atlantic Tunas Convention Act (ATCA). Under the Magnuson-Stevens Act, the National Marine Fisheries Service (NMFS) must manage fisheries to maintain optimum yield (OY) by rebuilding overfished fisheries and preventing overfishing. Under ATCA, NMFS is authorized to promulgate regulations, as may be necessary and appropriate, to implement the recommendations from the International Commission for the Conservation of Atlantic Tunas (ICCAT). Before this action, tunas, swordfish, and sharks were managed under the 1999 Fishery Management Plan (FMP) for Atlantic Tunas, Swordfish, and Sharks (and its 2003 amendment) and billfish were managed under the 1988 Atlantic Billfish FMP (and its 1999 amendment). This final HMS FMP combines the management of all Atlantic HMS into one FMP, and combines and simplifies the objectives of the previous FMPs.

NMFS announced its intent to prepare an Environmental Impact Statement to amend the two previous FMPs on July 9, 2003. In this notice, NMFS asked for comments on quota allocations of Atlantic bluefin tuna (BFT), swordfish, and sharks among and within domestic fishing categories; management alternatives to improve and streamline the current HMS limited access permit program; a review of HMS essential fish habitat (EFH) identifications; and exempted fishing and scientific research permitting issues. On April 30, 2004, NMFS announced the availability of an Issues and Options Paper and its intent to hold nine scoping meetings. This paper expanded the list of issues to include those issues listed above, additional issues for every species, HMS tournaments, bycatch reduction, recordkeeping and reporting, workshops, authorized fishing gears, and consolidation of the FMPs. NMFS presented the Issues and Options Paper to the New England, Mid-Atlantic, and Gulf of Mexico Fishery Management Councils and the Atlantic States Marine Fisheries Commission. A summary of the major comments received during scoping was released in December 2004 and is available on the HMS Management Division webpage at <http://www.nmfs.noaa.gov/sfa/hms>.

The Issues and Options paper included an exhaustive list of issues that NMFS could address regarding Atlantic HMS. During scoping, NMFS heard of more issues and options that merit additional consideration and examination. At the Predraft stage, in order to complete this action in a timely manner, NMFS decided to handle in this rulemaking only some of the issues identified in the Issues and Options paper and scoping process. NMFS prioritized the issues and chose to consider those that were required by law (*e.g.*, handling and release workshops are required under the 2004 Biological Opinion) and/or would improve the management of the fisheries (*e.g.*, amending the FMP for the BFT General Category should allow management to make changes in the fisheries on a more timely basis).

In February 2005, NMFS released the combined Predraft of the Consolidated HMS FMP and the 2005 Annual Stock Assessment and Fishery Evaluation (SAFE) Report. NMFS presented the Predraft document to all five Atlantic Fishery Management Councils, both the Gulf and Atlantic States Marine Fisheries Commissions, and to the HMS and Billfish Advisory Panels. Comments received on both the Issues and Options Paper and the Predraft were considered when drafting and analyzing the ecological, economic, and social impacts of the

alternatives in both the draft and final HMS FMP. A summary of the comments received on the Predraft was released in June 2005 and is available on the HMS Management Division webpage. While some of the options changed between the Predraft and Draft stages, the overall list of issues to be addressed did not change.

On August 19, 2005, the draft HMS FMP and proposed rule were released. Originally, the comment period was set to end 60 days after publication (October 18, 2005). However, due to hurricanes Katrina and Rita, NMFS extended the comment period to March 1, 2006 (for a total comment period of 194 days), in order to ensure that those fishermen directly affected by the hurricanes would have an adequate amount of time to review the document and provide comment. Several thousand written comments were received, 24 public hearings were held, and all five Atlantic Fishery Management Councils and the Gulf and Atlantic States Marine Fisheries Commissions were given briefings. A summary of the public comments received and NMFS' response to those comments is included in an appendix of this document and will also be in the final rule implementing the regulations. In addition to the public comments, NMFS also had three independent scientists (*i.e.*, scientists not involved in the drafting of the document) review three specific sections of the draft HMS FMP. The three sections were the time/area analyses, the standardized bycatch reporting methodology, and the review of EFH. The peer review comments are also included in an appendix of this document.

The preferred alternatives in this document considered all of the comments received from the general public at all stages of the rulemaking and the peer review by the independent scientists. Table 1 provides the list of the changes from the draft document and the expected implementation date of each alternative. A summary of the issues addressed and the other alternatives considered in this rulemaking can be found below. More detail can be found in Chapters 2 and 4 of this document. The final HMS FMP also consolidates the objectives for the FMP (listed in Chapter 1) and removes the exemption to the billfish no sale provision (allowed for, but not implemented, in the 1988 Billfish FMP). NMFS believes that the suite of preferred alternatives in this document should, consistent with the Magnuson-Stevens Act and other domestic laws, allow overfished Atlantic HMS to rebuild, address overfishing of Atlantic HMS, balance the needs of the fishermen and communities with the needs of the resource, and maximize OY for the fishery and the resource.

Table 1 The preferred alternatives at the draft and final stage of the Consolidated HMS FMP and the expected implementation date.

Preferred Alternative in Draft HMS FMP	Preferred Alternative in Final HMS FMP	Expected Implementation Date
<i>Bycatch Reduction: Workshops</i>		
A2. Mandatory workshops and certification for all HMS pelagic and bottom longline vessel owners	Same	January 1, 2007: must complete certification prior to renewing HMS permit in 2007
A3. Mandatory workshops and certification for vessel operators actively participating in HMS pelagic and bottom longline fisheries	Same	January 1, 2007: must complete certification prior to fishing on a vessel that has renewed its HMS permit in 2007
A5. Mandatory workshops and certification for shark gillnet vessel owners and operators	Same	January 1, 2007: must complete certification prior to renewing HMS permit in 2007
A6. Certification Renewal Timetable (Certification renewal every 3-years)	Same	30 days after final rule is published
A9. Mandatory HMS identification workshops for all shark dealers	Same	December 31, 2007
A16. Certification Renewal Timetable (Certification renewal every 3-years)	Same	30 days after final rule is published
<i>Bycatch Reduction: Time/Area Closures</i>		
B4. Implement complementary HMS management measures in Madison-Swanson and Steamboat Lumps Marine Reserves	Same	30 days after final rule is published
B5. Establish criteria to consider when implementing new time/area closures or making modifications to existing time/area closures	Same	30 days after final rule is published
<i>Rebuilding and Preventing Overfishing: Northern Albacore Tuna</i>		
C3. Establish the foundation with ICCAT for developing an international rebuilding program	Same	30 days after final rule is published
<i>Rebuilding and Preventing Overfishing: Finetooth Sharks</i>		
D4. Identify sources of finetooth shark fishing mortality to target appropriate management actions	Same	Ongoing
<i>Rebuilding and Preventing Overfishing: Atlantic Billfish</i>		
E3. Effective January 1, 2007, limit all Atlantic billfish tournament participants to using only non-offset circle hooks when using natural baits or natural bait/artificial lure combinations	E3. Effective January 1, 2007, limit all HMS permitted vessels participating in Atlantic billfish tournaments to deploying only non-offset circle hooks when using natural baits or natural bait/artificial lure combinations	January 1, 2007

Preferred Alternative in Draft HMS FMP	Preferred Alternative in Final HMS FMP	Expected Implementation Date
E6. Effective January 1, 2007, implement ICCAT Recommendations on Recreational Marlin Landings Limits	Same	January 1, 2007
E7. Effective January 1, 2007 - December 31, 2011, allow only catch and release fishing for Atlantic white marlin	No longer preferred	NA
<i>Management Program Structure: Bluefin Tuna Quota Management</i>		
F3. Amend the management procedures regarding General category time-periods, subquota, as well as geographic set-asides to allow for future adjustments to take place via a regulatory framework action	Same	30 days after final rule is published
F3(c). Revise General category time-periods and subquotas to allow for a formalized winter fishery (June-Aug, 50%; Sept, 26.5%; Oct-Nov, 13%; Dec, 5.2% and Jan, 5.3%)	Same	30 days after final rule is published
F4. Clarify the procedures for calculating the Angling category school size-class BFT subquota allocation and remove the Angling category north/south dividing line	F4. Clarify the procedures for calculating the Angling category school size-class BFT subquota allocation and maintain the Angling category north/south dividing line	30 days after final rule is published
F6. Revise the annual BFT specification process to refer back to the supporting analytical documents of the Consolidated HMS FMP and include seasonal management measures in annual framework actions	Same	30 days after final rule is published
F8. Establish an individual quota category carry-over limit of 100 percent of the baseline allocation (<i>i.e.</i> , no more than the annual baseline allocation may be carried forward), except for the Reserve category, and authorize the transfer of quota exceeding the 100 percent limit to the Reserve or another domestic quota category, while maintaining status quo overharvest provisions	Same	30 days after final rule is published
F10. Revise and consolidate criteria considered prior to performing inseason and some annual BFT management actions	Same	30 days after final rule is published
<i>Management Program Structure: Timeframe for Annual Management of HMS Fisheries</i>		
G2. Shift the fishing year to January 1 – December 31 for all HMS	Same	January 1, 2008
<i>Management Program Structure: Authorized Fishing Gears</i>		
H2. Authorize speargun fishing gear as a permissible gear type in the recreational Atlantic tuna fishery	H2. Authorize speargun fishing gear as a permissible gear type in the recreational Atlantic BAYS tuna fishery	30 days after final rule is published

Preferred Alternative in Draft HMS FMP	Preferred Alternative in Final HMS FMP	Expected Implementation Date
H4. Authorize green-stick for the commercial harvest of Atlantic BAYS tunas	No longer preferred	NA
H5. Authorize buoy gear in the commercial swordfish handgear fishery, and limit vessels employing buoy gear to possessing and deploying no more than 35 individual buoys, with each having no more than two hooks or gangions attached	H5. Authorize buoy gear as a permissible gear type in the commercial swordfish handgear fishery; limit vessels employing buoy gear to possessing and deploying no more than 35 floatation devices, with each individual gear having no more than two hooks or gangions attached	30 days after final rule is published
H7. Clarify the allowance of hand-held cockpit gears used at boat side for subduing HMS captured on authorized gears	Same	30 days after final rule is published
<i>Management Program Structure: Regulatory Housekeeping</i>		
I1(b). Establish additional restrictions on longline gear in HMS time/area closures by specifying a maximum and minimum allowable number of commercial fishing floats to qualify as a BLL and PLL vessel, respectively	No longer preferred	NA
I1(c). Differentiate between PLL and BLL gear based upon the species composition of the catch onboard or landed	Same	30 days after final rule is published
I2(b). Require that the 2 nd dorsal fin and the anal fin remain on all sharks through landing	Same	30 days after final rule is published
I3(b). Add new prohibition at § 635.71(a)(48) making it illegal for any person to, “Purchase any HMS that was offloaded from an individual vessel in excess of the retention limits specified in §§ 635.23 and 635.24”	Same	30 days after final rule is published
I3(c). Add new prohibition at § 635.71(a)(49) making it illegal for any person to, “Sell any HMS that was offloaded from an individual vessel in excess of the retention limits specified in §§ 635.23 and 635.24”	Same	30 days after final rule is published
I4(b). Amend the second coordinate of the East Florida Coast closed area so that it corresponds with the EEZ	Same	30 days after final rule is published
I5(b). Amend the definition of “handline” at § 635.2 by requiring that they be attached to, or in contact with, all vessels	Same	30 days after final rule is published
I6(b). Prohibit vessels issued commercial permits and operating outside of a tournament from possessing, retaining, or taking Atlantic billfish from the management unit	Same	30 days after final rule is published

Preferred Alternative in Draft HMS FMP	Preferred Alternative in Final HMS FMP	Expected Implementation Date
I7(b). Amend the HMS regulations to provide an option for Atlantic tunas dealers to submit required BFT reports using the Internet	Same	30 days after final rule is published
I8(b). Require submission of “No Fishing” reporting forms for selected vessels if no fishing trips occurred during the preceding month, postmarked no later than seven days after the end of the month	Same	30 days after final rule is published
I8(c). Require submission of the trip “Cost-Earnings” reporting form for selected vessels 30 days after a trip and the annual “Cost-Earning” report form by January 31 of each year	I8(c). Require submission of the trip “cost-earnings” reporting form for selected vessels 30 days after a trip, and the “annual expenditures” report form by the date specified on the form	30 days after final rule is published
I9(b). Require vessel owners to report non-tournament recreational landings of North Atlantic swordfish and Atlantic billfish	I9(b). Require vessel owners (or their designees) to report non-tournament recreational landings of North Atlantic swordfish and Atlantic billfish	30 days after final rule is published
I10(b). Modify the HMS regulations to state that “In addition, each year, 25 mt (ww) will be allocated for incidental catch by pelagic longlines” in the NED	I10(c). Conduct additional discussions at ICCAT regarding quota rollovers and adjust quotas allocated to account for bycatch related to pelagic longline fisheries in the vicinity of the management area boundary accordingly	30 days after final rule is published
I11(b). Require recreational vessels with a Federal permit to abide by Federal regulations, regardless of where they are fishing, unless a state has more restrictive regulations	Same	30 days after final rule is published

Bycatch Reduction: Workshops

The June 2004 Biological Opinion (BiOp) for the Atlantic HMS pelagic longline fishery requires NMFS to conduct training workshops regarding the safe release and disentanglement of sea turtles from pelagic longline gear and to certify that fishermen have attended these workshops. The October 2003 BiOp on the Atlantic shark fishery requires a series of workshops that provide gear handling techniques and protocols that deal with entanglements and protected species, in general, and include information on smalltooth sawfish and HMS requirements. Additionally, in Amendment 1 to the Atlantic Tunas, Swordfish, and Shark FMP, NMFS stated that if shark fishermen can show that they can fish for specific species (*e.g.*, target sandbar sharks) and correctly identify the shark species caught on their gear, then the Agency might consider using species-specific shark quotas in the future. Thus, NMFS felt it was important to

consider workshops, particularly workshops for handling and release of protected species and workshops for identification of Atlantic HMS, in this rulemaking.

The workshops for the safe release, disentanglement, and identification of protected resources are designed to reduce the post-hooking mortality of sea turtles and other protected resources by educating fishermen on how to apply the appropriate safe handling and release protocols, improve compliance with regulations, and enhance the utility of vessel logbook data. The preferred alternatives for the protected species workshops would require all longline and gillnet permit holders and operators to attend and be certified in handling and release techniques and gear. Mandatory workshops for vessel owners would be linked to the vessels' permit, ensuring well attended workshops. Including operators would guarantee at least one person on board the vessel during fishing activities is adept at the safe handling and release protocols. NMFS also considered a range of alternatives for the protected species workshops including voluntary workshops (no action) and mandatory workshops for the owners, operators, and the crew of all HMS longline and gillnet vessels.

The preferred alternative for the identification workshops calls for all Federally permitted shark dealers, or a designated proxy, to attend one-day workshops on species-specific identification of offloaded shark carcasses. NMFS believes that identifying shark carcasses is more difficult and uncertain than identifying other HMS carcasses as evidenced by the large proportion of "unclassified" sharks listed on shark dealer logbooks. This uncertainty compromises quota monitoring and stock assessment efforts. Dealers are a focal point for gathering shark landings information as sharks from numerous vessels are offloaded at each individual dealer. Positive identification is often less difficult for fishermen than dealers as they know exactly where (depth, type of habitat, etc) a shark has been caught and often see the sharks alive and intact. NMFS considered a range of alternatives for these identification workshops including voluntary HMS identification workshops for dealers, recreational fishermen, and all commercial vessel owners and operators (no action) and mandatory identification workshops for all HMS dealers and/or HMS permit holders.

Under the preferred alternatives, longline and gillnet permit holders and vessel operators and shark dealers would be required to be recertified every three years. NMFS also considered recertification time periods of two and five years. Requiring recertification every three years would balance the ecological benefits of maintaining familiarity with the protocols and the economic impacts of workshop attendance due to travel costs and lost fishing opportunities.

None of the preferred alternatives changed significantly between the draft and final stages of this HMS FMP, although NMFS did adjust the effective dates as a result of public comment and the lengthening of the comment period. These one-day workshops are not expected to result in excessive economic impacts as they would be scheduled at numerous locales along the Atlantic coast, minimizing travel and lost fishing time.

Bycatch Reduction: Time/Area Closures

Since the 1999 FMP for Atlantic Tunas, Swordfish, and Sharks, NMFS has implemented a number of time/area closures in order to reduce bycatch, to the extent practicable, consistent

with the National Standards. While the results of preliminary analyses examining the efficacy of these closures have been included in annual SAFE Reports, a comprehensive analysis of the impact of the closures on bycatch rates, the fishermen, and the communities is contained in this document. In this document, NMFS examines the current time/area closures to determine if these closures are accomplishing the original goals of the closures and whether changes are needed to accomplish other objectives. The results of that examination indicate that both bycatch and overall effort in the fleet has been reduced (see discussions of alternative B1 in Chapter 4).

In this HMS FMP, NMFS is preferring two alternatives in regard to time/area closures. The first preferred alternative would establish HMS regulations in the Madison-Swanson and Steamboat Lumps Marine Reserves that complement the Gulf of Mexico Fishery Management Council's regulations. These closures are expected to have minimal ecological, economic, or social impacts on HMS fishermen. The second preferred alternative would establish criteria that would guide future decision-making regarding implementation or modification of time/area closures. This would provide enhanced transparency, predictability, and understanding of HMS management decisions, allow for more adaptive management, and should result in minimal social and economic impacts. Any impacts for specific closures would be analyzed when those closures are considered.

As described in Chapter 4 and Appendix A, NMFS used POP and HMS logbook data to identify new areas for time/area closures and selected alternatives based on these data to further analyze 10 different closures or modifications for this rulemaking. NMFS evaluated the reduction in discards of white marlin, blue marlin, sailfish, spearfish, leatherback sea turtles, loggerhead sea turtles, other sea turtles, and BFT without redistribution of effort based on POP data and the HMS logbook data for the various time/area closure alternatives (see Chapter 4). Using HMS logbook data (see Chapter 4 and Appendix A), NMFS evaluated different scenarios of a redistribution of fishing effort model, where each scenario had different assumptions regarding how fishing effort would be redistributed into open areas. The model used in this time/area analysis was consistent with the methods used in past rulemakings (for more information on redistribution of effort model selection, please see page 4-6). Additional redistribution of effort scenarios were considered based on comments received on the Draft Consolidated HMS FMP and the OMB reviews. As described in Chapter 4, each scenario of the models had different assumptions regarding how fishermen would react to the closures (*e.g.*, will fishermen move out of the closed area but continue fishing in surrounding open areas, move their business, or sell their permits to someone near an open area). Because of the difficulty in predicting fishermen's behavior, NMFS analyzed the range of what would happen fleet-wide while recognizing that individuals within the fleet may act differently, and large closures may result in more movement in order for fishermen to find open areas to fish and stay in business.

NMFS examined a wide range of alternatives including closing additional closures or combining these additional closures for pelagic longline gear in the Gulf of Mexico and the Atlantic Ocean, modifying existing closures for pelagic longline gear, establishing a closure for bottom longline gear to protect smalltooth sawfish, and closing all areas to pelagic longline gear. These alternatives were not preferred for a variety of reasons. The ecological benefits of some of the additional closure alternatives considered were predicted to be variable with redistribution of

effort, with potential negative ecological impacts to several species. For example, alternative B2(a) (May - Nov), intended primarily to reduce leatherback sea turtle interactions, and white marlin and BFT discards, could result in a 7.9 percent increase in loggerhead sea turtle interactions and a 10.3 percent increase in BFT discards (see Table 4.2). As described in Appendix A, even the modified redistribution of effort model for alternative B2(a) predicted increases in sailfish discards (4.7 percent), LCS discards (4.4 percent), BFT discards (1.6 percent), and BAYS discards (0.7 percent). When closure areas were combined, the redistribution of effort model predicted similar results with an increase in discards of several species.

Alternatives B3(a) and B3(b) were considered to refine existing closures and to provide additional opportunity to harvest legal-sized swordfish while not increasing bycatch. NMFS, however, is not preferring any modifications to the current closures. None of the modifications considered would have resulted in a large enough increase in retained catch to alleviate concerns over uncaught portions of the swordfish and BFT quotas. For instance, B3(a) was predicted to increase retained swordfish catch by only 30.72 mt, and B3(b) was predicted to increase the retained swordfish catch by 0.07 mt. However, as of April 30, 2006, 4,905.9 mt and 294.7 mt of directed and incidental quota, respectively, were still available for the 2005 fishing year. In addition, modifications to existing closures could result in increased bycatch of blue and white marlin, which is a concern given the stock status of blue and white marlin and the scheduled white marlin ESA review. Increased interactions with sea turtles and marine mammals (*e.g.*, pilot whales and Risso's dolphins) are an additional concern.

Finally, all of these analyses (those analyzing the impacts of new closures and those analyzing the impacts of modifications to existing closures) were conducted using J-hook data. New circle hook management measures were put into place in 2004, and NMFS is still assessing the effects of circle hooks on bycatch rates for HMS. Based on the Northeast Distant experiment, circle hooks likely have a significantly different catch rate than J-hooks. Therefore, NMFS needs to conduct further investigations to determine the potential impact of any new time/area closures or modifications to existing closures. NMFS anticipates that 2005 HMS logbook final data will become available in the summer of 2006. In addition, NMFS is awaiting additional information regarding the status of the pelagic longline fleet after the devastating hurricanes in the Gulf of Mexico during the fall of 2005. A majority of the pelagic longline fleet was thought to be severely damaged or destroyed during the 2005 hurricane season. The amount of pelagic longline fishing effort, especially within the Gulf of Mexico, will likely be assessed in the summer of 2006 when 2005 HMS logbook final data becomes available. Until NMFS can better estimate the current fishing effort and potential recovery of the pelagic longline fleet, it may be premature to implement any new time/area closures, particularly in the Gulf of Mexico. Furthermore, a number of stock assessments will be conducted during 2006 (blue marlin, white marlin, north and south swordfish, eastern and western BFT, and large coastal sharks). NMFS is waiting on the results of these stock assessments to help determine domestic measures with regard to management of these species.

For the bottom longline closure alternative (B6), NMFS is waiting for the Smalltooth Sawfish Recovery Team to designate critical habitat in order to compare possible closure areas with the critical habitat. Closing all areas to pelagic longline gear (alternative B7) would have

severe economic and social impacts in the short term and possible negative ecological impacts in the long term if U.S. quotas are transferred to countries without the same conservation ethic.

While NMFS did not change the preferred alternatives between the draft and final stages, NMFS did conduct additional analyses as a result of public comment. These analyses include examining the redistribution of effort model and its applicability, the mobility of the fleet, and the concept of a decision matrix. NMFS also began looking at the 2004 circle hook data for the pelagic longline fishery. In the future, NMFS intends, among other things, to investigate the choices fishermen have made regarding previous closures and to pursue alternatives to reduce bycatch in the Gulf of Mexico, especially for BFT. For BFT, NMFS is currently trying to assess how protecting one age class at the potential detriment of other age classes will affect the fish stock as a whole, and is also considering developing incentives that would dissuade fishermen from keeping incidentally caught BFT, particularly spawning BFT, in the Gulf of Mexico. This may involve research on how changes in fishing practices may help reduce bycatch of non-target species as well as the tracking of discards (dead and alive) by all gear types. More information on these additional analyses, their results, and potential future actions are contained in Chapter 4 and Appendix A.

Rebuilding and Preventing Overfishing: Northern Albacore Tuna

Since the 1999 FMP, NMFS has determined that northern albacore tuna are overfished. While NMFS published a final rule that stated NMFS would work with ICCAT to rebuild northern albacore, a rebuilding plan was not previously incorporated in the FMP. The preferred alternative would establish a foundation with ICCAT for developing an international rebuilding plan. Under this alternative, NMFS will continue to work with ICCAT member nations to develop and adopt an appropriate international rebuilding plan for northern albacore tuna with a specified recovery period, biomass targets, fishing mortality rate limits, and explicit interim milestones. The U.S. harvest of the North Atlantic stock is proportionally so low that the socio-economic impacts to the United States would likely be minimal but would depend upon the specifics of the rebuilding plan adopted by ICCAT. The other alternatives of no action or unilateral action would not be consistent with the Magnuson-Stevens Act or ATCA, and would be unlikely to rebuild northern albacore.

Rebuilding and Preventing Overfishing: Finetooth Sharks

In 2002, NMFS determined that overfishing is occurring on finetooth sharks. In the 2003 Amendment to the 1999 FMP, because most finetooth landings appear to come from fishermen in non-HMS fisheries, NMFS stated that it would take action to identify sources of fishing mortality on finetooth sharks, increase outreach, improve enforcement of the recreational limits, and work with the Regional Fishery Management Councils to identify fisheries that catch finetooth sharks.

In this HMS FMP, NMFS prefers an alternative that would establish a plan to prevent overfishing. This preferred alternative would identify the sources of fishing mortality for finetooth sharks. The analyses in the HMS FMP found that the majority of finetooth sharks are landed in the South Atlantic region (primarily Florida) by vessels deploying gillnet gear and in possession of both a Spanish mackerel permit and a commercial shark permit. NMFS also found

that an unmanaged fishery, the southern kingfish fishery, also catches finetooth sharks. Thus, any management measures that are solely directed at fishermen using gillnet gear and in possession of a commercial shark permit could easily be circumvented by fishermen using gillnets for Spanish mackerel or kingfish. In addition to conducting analyses, NMFS has also contacted the states and Regional Fishery Management Councils, sent a letter to the South Atlantic Fishery Management Council requesting collaboration in management between gillnet fisheries, and requested that finetooth sharks be added to observer programs such as the Gulf of Mexico shrimp trawl fishery. These actions should provide additional options to address this issue.

NMFS considered other alternatives including no action, management measures targeting commercial shark permit holders, and management measures targeting recreational HMS permit holders. Targeting commercial shark permit holders is confounded by the fact that finetooth sharks are within the SCS complex, which is not currently overfished or experiencing overfishing, and commercial fishermen have only caught, on average, 28.5 percent of the SCS quota between 1999-2003. Measures aimed at the recreational fishery would only affect a small portion of the overall finetooth shark landings. Furthermore, a conservative bag limit of one shark (including finetooth shark) and a minimum size above the age at first maturity for males and females are already in place. NMFS intends to conduct a new small coastal shark stock assessment following the Southeast Assessment, Data, and Review process starting in 2007. As more research and data become available, NMFS may reconsider these other alternatives.

NMFS did not change the preferred alternative between the draft and final stages. NMFS believes that the preferred approach constitutes a plan to prevent overfishing and is a prudent means of establishing regulations that might affect a type of gear (gillnet), rather than an individual permit. Applying the regulations to the gear is critical as regulations implemented only on shark permit holders would only affect a sub-set of the individuals responsible for finetooth shark fishing mortality, could be easily circumvented, and would likely result in additional dead discards of finetooth sharks.

Rebuilding and Preventing Overfishing: Atlantic Billfish

Despite the implementation of domestic and international management measures, the status of Atlantic blue and white marlin has continued to decline. Currently, the status of sailfish and spearfish is uncertain. Atlantic white marlin has been identified as one of the most severely overfished species of any stock under ICCAT's purview for the past four years, but nevertheless continues to be subjected to unsustainable levels of fishing mortality throughout the Atlantic. In 2002, the United States undertook a status review of white marlin pursuant to the Endangered Species Act (ESA). While the status review team determined that white marlin stock status did not warrant a listing at that time, it concluded that "unless fishing mortality is reduced significantly and relatively quickly, the stock could decline to a level that would warrant ESA protection" (White Marlin Status Review Team 2002). NMFS will conduct another ESA listing review in 2007. As such, in this document, NMFS reviewed the current data and examined methods of reducing billfish mortality in both the commercial (*e.g.*, time/area closures) and recreational fisheries (*e.g.*, circle hook requirements).

NMFS is preferring two alternatives to reduce the post-release mortality of billfish associated with the directed billfish fishery. The first preferred alternative would require the use of non-offset circle hooks by HMS permitted vessels in billfish tournaments when using natural baits or natural bait/artificial lure combinations. The second preferred alternative would codify the ICCAT landings recommendations for billfish. The current landings recommendation would limit the United States to landing no more than 250 blue or white marlin per year. These alternatives strike a balance between conserving living marine resources and maintaining robust recreational fisheries while achieving the objectives of the HMS FMP. The preferred alternatives are anticipated to substantially reduce the post-release mortality of Atlantic white marlin, provide positive ecological benefits for other species such as blue marlin, sailfish, and tunas, and maintain consistency with United States' international obligations. NMFS is delaying the effective date for the circle hook requirement to mitigate, to the extent practicable, adverse economic impacts and losses in angler consumer surplus by allowing: tournament operators adequate time to adjust advertising, rules, business practices, and tournament formats; existing stockpiles of J-hooks to be used; and, anglers time to become comfortable and proficient with newly required gear.

As a result of public comment, NMFS is no longer preferring the alternative that would prohibit the landing of white marlin. Additionally, NMFS clarified the intent of the first preferred alternative to ensure that only HMS permit holders, not all tournament participants, would be affected by the circle hook requirement.

Management Program Structure: Bluefin Tuna Quota Management

Western Atlantic BFT are overfished, and one of the main objectives of the Consolidated HMS FMP is to end overfishing and rebuild overfished stocks, while providing reasonable fishing opportunities to harvest the limited quota that is available under the BFT rebuilding plan. Since the 1999 FMP, BFT management has become increasingly complicated and difficult for the public to understand and may no longer accurately reflect the needs of the fishery and goals of the 1999 FMP. These issues are evident on a daily basis from the number of constituent inquiries addressed by NMFS and the number of inseason management actions necessary throughout the season. In addition, NMFS has received a petition from the State of North Carolina Department of Marine Fisheries (NMDMF) for rulemaking to adjust the quota allocations to provide for a General category fishery off North Carolina in the winter. NMFS considers these requests and considers ways of clarifying BFT management.

Two of the preferred alternatives would amend the time period and sub quotas for the General category and clarify the procedures for calculating the Angling category school-size fish. These alternatives are expected to enhance NMFS' flexibility to address inherent variability in the BFT fishery while still allowing for business planning. They also respond in part to the NCDMF's Petition for Rulemaking and would allow for a formal General category winter BFT fishery while still recognizing the historical BFT catch rates in the New England area fishery. These preferred alternatives would also clarify the procedures NMFS used to implement the ICCAT recommendation regarding the eight percent tolerance limit of school BFT as well as maintain the recreational North/South dividing line as a management tool.

Two other preferred alternatives would provide participants in the BFT fishery a timely and stable baseline quota allocation from one year to the next, the ability to address under/overharvest from the previous year, the ability to establish the General category effort controls as well as recreational and commercial handgear daily retention limits for the upcoming season, and streamline the annual rulemaking process. Additionally, providing NMFS the authority to implement a cap on the amount of quota that may be carried forward from one fishing year to the next would allow NMFS to manage to harvest of BFT with more finite precision and minimize the occurrence of 'stockpiling' in any one quota category.

Another preferred alternative would consolidate and refine the criteria that NMFS must consider prior to conducting any inseason, and some annual, actions. This preferred alternative would assist in meeting the Consolidated HMS FMP's objectives in a consistent manner, providing reasonable fishing opportunities, increasing the transparency in the decision making process, and balancing the resource's needs with users' needs.

Management Program Structure: Timeframe for Annual Management of HMS Fisheries

In the 1999 FMP and 1999 Billfish Amendment, NMFS established a fishing year management cycle for tunas, billfish, and swordfish that began on June 1 and went through the following May 31. This fishing year was established to allow NMFS time to implement recommendations from ICCAT before the fishing year began. The change to the fishing year, however, has been problematic given that many of the data infrastructure and reporting requirements both within NMFS and ICCAT are based on a calendar year rather than a fishing year. NMFS prefers the alternative that would establish a fishing year management cycle for all HMS of January 1 through December 31. This preferred alternative is expected to simplify the regulatory process for constituents in the long term by managing all HMS fisheries on a calendar year and improve the United States' basis for negotiation at international forums.

Management Program Structure: Authorized Fishing Gears

In 1999, NMFS published a list of authorized gears for all fisheries across the nation. Occasionally, NMFS receives requests to modify the list of authorized gears. Sometimes, these requests include gear that fishermen use in other oceans or elsewhere in the Atlantic to catch the same species; other times, the requests are due to additional groups requesting to use a gear that is approved for one permit, but not another. NMFS considers some of these requests (*e.g.*, green-stick gear and speargun fishing gear) pertaining to HMS in this rulemaking.

NMFS prefers several alternatives that would add authorized gear types in HMS fisheries. The first preferred alternative would allow spearfishermen to participate in the Atlantic bigeye, albacore, yellowfin, and skipjack (BAYS) tunas fishery. This alternative is responsive to specific public comment and requests from constituents. This preferred alternative is anticipated to result in minimal negative ecological impacts and positive social and economic benefits. This preferred alternative is modified slightly from what was proposed in that, due to concerns related to the status of BFT, only BAYS tunas could be taken by spearfishermen, not BFT.

The second preferred alternative would allow the commercial swordfish handgear fishery to continue to utilize individual unattached buoyed gears (a.k.a. buoy gear), and would limit the maximum number of gears deployed by a vessel. Before this FMP, both recreational and commercial swordfish handgear fishermen could use this gear, previously called handline, and were not limited in the number of gears that could be deployed. This alternative may provide some positive ecological benefits by limiting future expansion of this gear sector and possibly by reducing the amount of lost fishing gear. This alternative could result in positive social benefits and would maintain current economic benefits to this sector. The last preferred alternative would, in response to requests from fishery participants, clarify the allowable use of secondary cockpit gears. This alternative should not result in an increase in bycatch mortality, over current levels, as secondary gears are currently utilized in HMS fisheries.

Although NMFS originally preferred an alternative that would allow for the use of greenstick in the commercial BAYS fishery in the Draft HMS FMP, it is not preferred in the Final HMS FMP. During the comment period, NMFS realized that many fishermen, both commercial and recreational, did not understand which gear configurations were currently allowed and which configurations the Agency was proposing to allow. Thus, NMFS will clarify the existing regulatory regime and the allowable configurations of green-stick gear in an effort to reduce confusion regarding the authorized use of green-stick gear.

Management Program Structure: Regulatory Housekeeping

This rulemaking also considers a number of corrections and additions to the Atlantic HMS regulations at 50 CFR part 635 and other relevant sections in the CFR (*e.g.*, 50 CFR part 300 contains information regarding international trade) in order to clarify their intent, remove incorrect cross-references, remove dated regulations, as appropriate, and aid enforcement. Besides the more than 40 minor corrections to the regulatory text, NMFS also considered a few changes that required alternatives. In all, NMFS is preferring 13 alternatives in this section across a wide range of eleven different issues.

The first issue in this section pertains to the definitions of bottom and pelagic longline gear. These gears catch different species and are currently differentiated by the number of weights and/or floats each gear uses. This raises enforcement concerns particularly in closed areas. As such, NMFS is preferring an alternative that would differentiate between gears based upon the species composition of the catch onboard or offloaded. This alternative is expected to accommodate the majority of commercial fishing operations, yet still provide a quantifiable method to differentiate between vessels using one gear or the other. Vessels that fish mixed trips (*i.e.*, trips that use both gear types) could still transit the closed areas provided the signals from their vessel monitoring system unit indicate the vessel is transiting and not fishing. This alternative is not expected to create significant adverse economic and social impacts and is expected to improve the monitoring of, and compliance with, HMS closed area regulations. NMFS originally preferred both the current preferred alternative and an alternative that would limit the number of floats on bottom longline vessels. NMFS is no longer preferring that alternative based upon public comment regarding impacts to vessel's operational flexibility, difficulties with terminology, and impracticalities in enforcing the alternative. Other alternatives

considered, besides the no action, included requiring time and depth recorders and closing all areas to “longline” rather than trying to define the gears.

The second issue pertains to shark identification. Currently, shark fishermen may remove all fins from the shark, consistent with the five-percent shark fin ratio. NMFS prefers an alternative that would require the second dorsal and anal fins to remain on all sharks through the first port of landing. While this alternative could have some minor economic and social impacts, this alternative is expected to generate ecological benefits by enhancing and improving species identification and data collection, thereby leading to improved management and increased shark populations. NMFS also considered alternatives that would allow fishermen to remove the second dorsal and anal fins from some species (*e.g.*, lemon sharks) or require all fins to remain on the shark.

In a third issue regarding sales of illegal landings, NMFS is preferring two alternatives that would add clear prohibitions to the regulations regarding the sale and purchase of landings in excess of the commercial retention limits. These alternatives may act as an additional deterrent to discourage this illegal practice. NMFS believes that the social benefits of preventing this practice should outweigh any short-term economic benefit gained as a result of illegally selling catches in excess of the commercial retention limits.

In a fourth issue regarding the definition of the closed areas, NMFS is preferring an alternative that would amend the area of the East Florida Coast closed area by extending one of its coordinates 1.02 km (0.55 nmi) seaward so that it corresponds with the outer boundary of the exclusive economic zone (EEZ). This alternative is not expected to create significant adverse economic and social impacts. Any fishing effort that would have occurred in this area would likely relocate to nearby open areas with similar catch rates. Because the East Florida Coast closed area would be enlarged under this alternative, it could reduce the bycatch of undersized swordfish, sailfish, and other HMS as compared with the no action alternative, but this reduction is expected to be minimal.

The fifth issue pertains to the definition of handline. In the authorized fishing gear section of the HMS FMP, NMFS is preferring an alternative that would define unattached handlines as buoy gear and restrict their use to commercial swordfish fishermen. In this section, NMFS is preferring an alternative that would require that handlines remain attached to all vessels. This alternative would primarily affect recreational fishery participants and commercial permittees that do not possess a commercial swordfish handgear permit. This alternative is not expected to have significant adverse social or economic impacts on fishery participants.

The sixth issue described in this section pertains to the retention of billfish by commercial permit holders. The directed billfish fishery is a recreational fishery. The regulations before this FMP required that all pelagic longline fishermen release any billfish. The regulations were silent on the retention of billfish by other commercial fishermen. NMFS is preferring an alternative that would clarify the regulations and would allow only recreational and charter/headboat fishermen to retain Atlantic billfish. General category permit holders participating in a registered HMS tournament could retain billfish during the tournament. Charter/headboat fishermen who

also hold commercial permits (*e.g.*, shark limited access permit) could retain billfish on non-for hire fishing trips only if no HMS on board exceed the recreational limits.

The seventh issue pertains to BFT dealer reports. The preferred alternative would provide an option for BFT dealers to submit certain reports electronically over the Internet once such a system is developed, but would not require it. Although unquantifiable, this alternative is expected to produce positive social and economic impacts for both industry and government, as a result of timesavings incurred when such a system is developed.

The eighth and ninth issues are related to reporting. The preferred alternatives would require no fishing reports and cost-earning reports to be submitted within a certain timeframe and would require either vessel owners or their designee, rather than anglers, to report all non-tournament recreational landings of Atlantic billfish and North Atlantic swordfish. None of these alternatives are expected to have adverse social or economic impacts. Rather, they clarify the regulations and improve data collection.

The tenth issue addresses the Northeast Distant (NED) BFT set-aside for pelagic longline fishermen. NMFS is preferring the alternative that would conduct additional discussions at ICCAT regarding the long-term implications of allowing unused BFT quota from the previous year being added to the subsequent year's allocation. Depending on the results of these discussions the regulations and operation procedures may need to be further amended in the future. In the interim, NMFS would maintain the current regulatory text, but would amend the practice of allowing under/overharvest of this set-aside allocation to be rolled into, or deducted from, the subsequent fishing year's set-aside allocation. This alternative would allow the pelagic longline fishery to retain incidentally caught BFT in the NED to the amount of 25 mt (ww) before landings are counted against the overall Longline category quota. At the proposed stage, NMFS preferred the alternative that would amend the current regulatory text and allow unharvested set-aside quota to be carried forward to subsequent years. That alternative is no longer preferred due to concerns about stockpiling quota and creating potential incentives to target BFT.

The last issue addressed in this section pertains to the inconsistencies between state and Federal regulations. Under the regulations, commercial swordfish and shark fishermen, as a condition of their permit, must abide by Federal regulations when fishing in state waters unless the state has more restrictive regulations. NMFS is preferring an alternative that would expand this permit condition to recreational and charter/headboat fishermen. This alternative is expected to achieve increased consistency between state and Federal regulations for Federally-permitted HMS recreational fishermen, and result in less confusion on behalf of fishermen and improved compliance. Compared with the No Action alternative, the preferred alternative would produce greater ecological benefits with few adverse social and economic impacts.

Essential Fish Habitat

In addition, this Consolidated HMS FMP continues a five-year review of EFH consistent with the EFH guidelines. The Magnuson-Stevens Act requires the Secretary, through NMFS, to establish guidelines to assist in the description and identification of EFH in FMPs, among other

things. The Agency set forth a schedule for the review and update of such EFH identifications based on new scientific evidence or other relevant information. The EFH guidelines articulate processes for determining the extent of EFH for each species and life-stage in a managed fishery. In addition, the EFH guidelines call for periodic review and revision of EFH identified areas based on available information, as well as a complete review of all EFH information at least once every five years. NMFS originally described and identified EFH for all HMS in 1999, and recently updated the EFH for five shark species (blacktip, dusky, finetooth, nurse, and sandbar) in Amendment 1 to the FMP for Atlantic Tunas, Swordfish, and Sharks, which was finalized in 2003. In this document, NMFS includes the information available for all HMS in order to aid in the determination of which species need updates to their EFH identifications. Any updates or resulting changes in management will be done in a future document.

Future Considerations

Beyond the issues addressed in this document or raised during scoping, other new and unresolved matters have been identified by the general public, the HMS and Billfish Advisory Panels, and NMFS staff as important to rebuilding and maintaining fisheries that are economically and biologically sustainable. NMFS may consider these issues or others in future rulemakings. It is important to note that some of these additional issues are complicated, may require specific comments from the public for development (*e.g.*, scoping meetings and/or developmental workshops), and may take several years to complete. These issues include: the BFT fishery (status of BFT, protection of spawning grounds, potential impact of herring fisheries, size limits, filleting at sea); the swordfish fishery (quota underharvests, reporting by recreational anglers, limited access restrictions, time/area closures); the billfish fishery (ESA status review in 2007, stock status, reduction in bycatch and post-release mortality); the shark fishery (new stock assessments, changes to trip limits, limited access restrictions, time/area closures); HMS permit reform; and recordkeeping, reporting, and monitoring of all HMS fisheries. These issues are described in more detail in Section 1.5.

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LIST OF COMMONLY USED ABBREVIATIONS AND ACRONYMS

AA	Assistant Administrator for Fisheries
ACCSP	Atlantic Coastal Cooperative Statistics Program
ACS	Angler consumer surplus
ALRS	Automated Landings Reporting System
ALWTRP	Atlantic Large Whale Take Reduction Plan
ALWTRT	Atlantic Large Whale Take Reduction Team
ANPR	Advanced Notice of Proposed Rulemaking
AOCTRP	Atlantic Offshore Cetacean Take Reduction Plan
AOCTRT	Atlantic Offshore Cetacean Take Reduction Team
AP	Advisory Panel
APA	Administrative Procedure Act
ASMFC	Atlantic States Marine Fisheries Commission
ATCA	Atlantic Tunas Convention Act
B	Biomass
BAYS	Bigeye, albacore, yellowfin, skipjack tunas
BET	Bigeye tuna
BETYP	Bigeye Tuna Year Program
BFT	Bluefin tuna
BiOp	Biological Opinion
BLL	Bottom Longline
B _{MSY}	Biomass expected to yield maximum sustainable yield
B _{OY}	Biomass expected to yield optimum yield
BSD	Bluefin Tuna Statistical Document
BTF	By the fish
BUM	Blue marlin
CAR	Caribbean Statistical Area
CBP	Customs and Border Protection
CFDBS	Commercial Fisheries Database System
CFMC	Caribbean Fishery Management Council
CFL	Curved fork length
CFR	Code of Federal Regulations
CHB	Charter/Headboat
CIAT	Spanish for IATTC
CIE	Center for Independent Experts
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
COE	Certificate of Eligibility
COFI	Committee on Fisheries
CPI	Consumer Price Index

CPUE	Catch per unit effort
CSFOP	Commercial Shark Fishery Observer Program (run by University of Florida)
CSR	Center for Shark Research
CSTP	Cooperative Shark Tagging Program
CZMA	Coastal Zone Management Act
DEIS	Draft Environmental Impact Statement
DPS	Distinct population segment
DRG	Dredge
DSGFOP	Directed Shark Gillnet Fishery Observer Program
dw	Dressed weight
EA	Environmental Assessment
EEZ	Exclusive Economic Zone
EFC	East Florida Coast closed area
EFH	Essential fish habitat
EFP	Exempted fishing permit
EIS	Environmental Impact Statement
EO	Executive Order
ESA	Endangered Species Act
F	Instantaneous fishing mortality
FAD	Fish aggregating device
FAO	Food and Agriculture Organization
FAS	Free Alongside Ship
FEC	Florida East Coast Statistical Area
FEIS	Final Environmental Impact Statement
FL	Fork length
FMP	Fishery management plan
F_{MSY}	Instantaneous fishing mortality rate expected to yield maximum sustainable yield
FMU	Fishery management unit
F_{OY}	Fishing mortality rate expected to yield optimum yield
FR	Federal Register
FRFA	Final regulatory flexibility analysis
GDP	Gross Domestic Product
GIS	Geographic Information System
GOM	Gulf of Mexico
GSAFDF	Gulf and South Atlantic Fishery Development Foundation
GMFMC	Gulf of Mexico Fishery Management Council
GSMFC	Gulf States Marine Fisheries Commission
HACCP	Hazard Analysis Critical Control Point
HAPC	Habitat area of particular concern

HBS	Headboat Survey
HMS	Highly migratory species: Atlantic sharks, tunas, swordfish, and billfish
HTS	Harmonized Tariff Schedule
IATTC	Inter-American Tropical Tuna Commission
ICCAT	International Commission for the Conservation of Atlantic Tunas
ILAP	Initial limited access permit
IMARPE	Instituto del Mar del Peru
INP	Instituto Nacional de Pesca
IPOA	International Plan of Action
IRFA	Initial regulatory flexibility analysis
ITP	International Trade Permit
ITQ	Individual transferable quota
ITS	Incidental take statement
IUU	Illegal, Unregulated, and Unreported
LAP	Limited access permit
LCS	Large coastal sharks
LJFL	Lower jaw fork length
LOA	Letter of Acknowledgment
LOF	List of Fisheries
LPS	Large Pelagic Survey
LWTRP	Large Whale Take Reduction Plan
LWTRT	Large Whale Take Reduction Team
M	Mortality
MAB	Mid-Atlantic Bight Statistical Area
MAFMC	Mid-Atlantic Fishery Management Council
Magnuson-Stevens Act	Magnuson-Stevens Fishery Conservation and Management Act
MFMT	Maximum fishing mortality threshold
MMPA	Marine Mammal Protection Act
MMS	Minerals Management Service
MPA	Marine protected area
MRFSS	Marine Recreational Fishing Statistics Survey
MSST	Minimum stock size threshold
MSY	Maximum sustainable yield
mt	Metric tons
NCA	North Central Atlantic
NEC	Northeast Coastal Statistical Area
NED	Northeast Distant Statistical Area
NEFMC	New England Fishery Management Council
NEFSC	Northeast Fisheries Science Center, NMFS

NEPA	National Environmental Policy Act
NERO	Northeast Regional Office, NMFS
NFRDI	National Fisheries Research and Development Institute
NGO	Non-governmental organization
NMFS	National Marine Fisheries Service
nmi	Nautical mile
NOA	Notice of Availability
NOAA	National Oceanographic and Atmospheric Administration
NOI	Notice of Intent
NPOA	National Plan of Action
NRC	Natural Resources Consultants, Inc.
NS	National Standards
NYB	New York Bight
OSF	Office of Sustainable Fisheries
OY	Optimum yield
PAT	Pop-up archival tag
PFD	Personal flotation device
PIFSC	Pacific Islands Fisheries Science Center
PLL	Pelagic longline
PLTRP	Pelagic Longline Take Reduction Plan
PLTRT	Pelagic Longline Take Reduction Team
POP	Pelagic observer program
PPI	Producer price index
OPR	Office of Protected Resources
PRA	Paperwork Reduction Act
PRM	Post-release mortality
PSAT	Pop-up satellite archival tag
RBS	Recreational Billfish Survey
Reg Flex Act	Regulatory Flexibility Act
RIR	Regulatory Impact Review
RFMC	Regional Fishery Management Council
RPAs	Reasonable and Prudent Alternatives
RPMs	Reasonable and Prudent Measures
RUM	Random utility model
SAFE Report	Stock Assessment and Fishery Evaluation Report
SAFMC	South Atlantic Fishery Management Council
SAB	South Atlantic Bight
SAI	Sailfish
SAR	Sargasso Sea

SBR	Spawning Stock Biomass Ratio
SCRS	Standing Committee for Research and Statistics
SCS	Small coastal sharks
SCUBA	Self contained underwater breathing apparatus
SD	Statistical document
Secretary	Secretary of Commerce
SEDAR	Southeast Data, Assessment, and Review
SEFSC	Southeast Fisheries Science Center, NMFS
SEIS	Supplemental Environmental Impact Statement
SEN	Seines
SERO	Southeast Regional Office, NMFS
SEW	Stock evaluation workshop
SFA	Sustainable Fisheries Act
SFL	Straight fork length
SK Program	Saltonstall-Kennedy Program
SRP	Scientific research permit
SSB	Spawning stock biomass
SWFSC	Southwest Fisheries Science Center
TAC	Total allowable catch
TAG	Tag-A-Giant
TAL	Total allowable landings
TCs	Terms and Conditions
TL	Total length
TRP	Traps and pots
TUNS	Tuna North and Tuna South
TWL	Trawls
TXPWD	Texas Parks and Wildlife Department
UNK	Unknown
USFWS	United States Fish and Wildlife Service
VIMS	Virginia Institute of Marine Science
VMS	Vessel monitoring system
WHM	White marlin
WPFMC	Western Pacific Fishery Management Council
WTP	Willingness to pay
ww	Whole weight
WWF	World Wildlife Fund
YFT	Yellowfin tuna
YOY	Young of the year